

number Cnum is set to 2. That is, the transmitting station starts transmission relating to two data channels DCH at the same time. More specifically, after the transmitting station starts transmission relating to the first and second data channels DCH1 and DCH2 at the same time, the transmitting station starts transmission relating to the third and fourth data channels DCH3 and DCH4 at the same time after three frames have passed.

As described above, according to this embodiment 2, transmission can be started with various patterns by suitably setting the delay frame number Cfrm and the simultaneous processing code number Cnum when the packet data is transmitted. Accordingly, an increasing pattern of the transmission power can be arbitrarily set. Thus, it is possible to realize desired transmission power control suitable for a surrounding electric wave environment.

Embodiment 3

Fig. 7 is a block diagram showing the inside structure of the mobile station 1 and the base station 2 according to embodiment 3 of the present invention. This embodiment 3 is for more specifically explaining the embodiments 1 and 2.

The mobile station 1 and the base station 2 respectively include a transmission portion 10, a reception portion 20, and an antenna portion 30. The transmission portion 10 includes

one wireless frame generation portion 11, one control portion 12, four modulation portions 13, four spread portions 14 provided in one-to-one correspondence to the respective modulation portions 13, one synthesis portion 15, and one transmission amplification portion 16. The modulation portions 13 and the spread portions 14 are respectively made to correspond to data channels DCH assigned to one call. In this embodiment 3, since four data channels DCH are assigned to one call, the modulation portions 13 and the spread portions 14 are respectively made to correspond to the four data channels DCH.

The reception portion 20 includes one reception amplification portion 21, four reverse spread portions 22, four demodulation portions 23, and one packet data extraction portion 24. The reverse spread portions 22 and the demodulation portions 23 are respectively made to correspond to the data channels DCH assigned to one call similarly to the case of the transmission portion 10. The antenna portion 30 includes a transmitting antenna 31 and a receiving antenna 32.

Various informations for the closed loop transmission power control are given to the transmission portion 10 from the reception portion 20. Specifically, the TPC symbol demodulated in the reception portion 20 and the SIR measured in the reception portion 20 are given to the transmission portion 10. The transmission portion 10 realizes the increase

and decrease of the transmission power in accordance with the instruction of a communication partner station on the basis of the TPC symbol, and sets the TPC symbol for instructing the communication partner station to increase or decrease the transmission power on the basis of the SIR. By this, the closed loop transmission power control is realized.

Next, the internal structure of the transmission portion 10 and the reception portion 20 will be described in more detail. The wireless frame generation portion 11 provided in the transmission portion 10 includes a transmission buffer 11a. The transmission buffer 11a is for temporarily storing the packet data and control information to be transmitted. When receiving the packet data and the control information, the wireless frame generation portion 11 stores the received packet data and the control information in the transmission buffer 11a.

The control portion 12 is made of, for example, a CPU (Central Processing Unit). The control portion 12 monitors the transmission buffer 11a in the wireless frame generation portion 11 at all times in order to detect whether or not the packet data is generated. That is, when the control portion 12 detects the start of storing of the packet data into the transmission buffer 11a, it is concluded that down packet data is generated. Besides, when the control portion 12 detects that the packet data disappears from the transmission buffer 11a,